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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,156	10/16/2003	Rick L. Adkins	PO-7934/MD-02-75	7891

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EXAMINER	
SERGENT, RABON A	
ART UNIT	PAPER NUMBER
1711	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/03/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/687,156	ADKINS ET AL.	
	Examiner	Art Unit	
	Rabon Sergent	1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 February 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16,19-27 and 29-53* is/are pending in the application.

4a) Of the above claim(s) *1-10 and 32-53* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *11-16, 19-27, and 29-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 8, 2007 has been entered.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 11-16, 19, and 22-27 and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 87/03886.

The reference discloses addition products of unsaturated monols and ethylenically unsaturated monomers, such as styrene, acrylonitrile, and mixtures thereof, suitable for use as dispersants for polymer-polyols, wherein the unsaturated monols have structures that meet those of applicants. The reference discloses such structures at page 6, lines 18-20 and 42-44, wherein phenylene linkages are disclosed as being preferred for the R^3 variable of the structure. The reference further discloses that the addition polymerization may occur in the presence of monols and polyols and chain transfer agents. See pages 11-13 and 15-17.

4. Applicants have essentially argued that the examples disclose quantities of components that differ from those of the instant claims. The examiner has reviewed the teachings of the reference and the position is taken that the teachings of the reference are not limited to its examples, and it is noted that quantities of components that satisfy applicants claimed amounts are set forth at page 10, lines 10-12; page 12, lines 14 and 15; and page 13, line 34 through page 14.

5. Claims 11-16, 19, 21-27, 29, and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Holeschovsky et al. ('731).

Holeschovsky et al. disclose at column 7, lines 28-30 that the stabilizers of WO 87/03886 may be produced using low intrinsic unsaturation polyether polyols, that correspond to those of claims 21 and 31. WO 87/03886 has been discussed within paragraphs 3 and 4 of this Office action.

6. The examiner has considered applicants' arguments; however, the arguments fail to address the teachings relied upon within column 7, lines 28-30 and the fact that these teachings encompass unsaturated monols, since WO 87/03886 discloses such monols.

7. Claims 20, 21, 30, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 87/03886 in view of Holeschovsky et al. ('731).

As aforementioned, the primary reference discloses addition products of unsaturated monols and ethylenically unsaturated monomers, such as styrene, acrylonitrile, and mixtures thereof, suitable for use as dispersants for polymer-polyols, wherein the unsaturated monols or polyols have structures that meet those of applicants. The reference discloses such structures at page 6, lines 18-20 and 42-44, wherein phenylene linkages are disclosed as being preferred for the R^3 variable of the structure. The reference further discloses that the addition polymerization may occur in the presence of monols and polyols and chain transfer agents. See pages 11 and 12.

8. The primary reference is silent with respect to applicants' specific alcohols of claims 20 and 30 and the specific polyol of claims 21 and 31. With respect to the specifically claimed alcohols, the position is taken that it would have been obvious to utilize any alcohol, such as those claimed, that would have been expected to be miscible with the base polyol, as suggested at page 11 of the primary reference. With respect to the specifically claimed polyol of claims 21 and 31, the position is taken that it was known at the time of invention to produce stabilizers having induced unsaturation from low intrinsic unsaturation polyols. See abstract of Holeschovsky et al. Holeschovsky et al. specifically disclose the stabilizers of WO 87/03886 at column 3 of the reference and the use of low unsaturation polyether polyols to produce such polymer polyol stabilizers at columns 3-7, especially column 7, lines 28-30. In view of this teaching, it would have been obvious to produce the stabilizer of WO 87/03886 using low unsaturation polypropylene polyols.

9. Applicants' response has been considered; however, it is insufficient to overcome the prior art rejection. Applicants argued deficiencies with respect to WO 87/03886 and Holeschovsky et al. have been previously addressed within paragraphs 4 and 6. Furthermore, in response to applicants' argument within page 26 of the response that the polyol diluents of Holeschovsky et al. are not low intrinsic unsaturation polyols, it is noted that Holeschovsky et al. state at column 7, line 12 that the argued polyol "need not be of the low unsaturation type"; therefore, in view of the "need not" language, it is clear that patentees allow for the use of low intrinsic unsaturation polyols or conventional polyols. It is clear that this language merely sets forth alternative embodiments governing the selection of the polyol, and it cannot be argued that the language teaches away from the use of low intrinsic unsaturation polyols.

10. Claims 11-16, 19, 22-27, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yu ('358).

Yu discloses addition products of unsaturated alcohols containing alkenyl aryl constituents and ethylenically unsaturated monomers, such as vinyl, acrylic, or diene monomers, wherein the unsaturated alcohols have structures that meet those of applicants. Patentee additionally discloses free-radical polymerization initiators and further disclose that the addition polymerization may occur in the presence of solvents such as benzene. See abstract; columns 3-12; and examples within Yu. Given the disclosure that copolymers may be produced and the disclosure of such commonly used comonomers as styrene and acrylonitrile, the position is taken that one would have clearly envisaged the ratio of claims 15 and 26 from patentee's disclosure or at the least found it obvious to operate within such a range of styrene to acrylonitrile.

11. While Yu discloses amounts of ethylenically unsaturated monomer and free-radical initiator within Example 2 that meets applicants' claims, Example 2 discloses an amount of macromer that is below applicants' claimed amount and an amount of solvent or diluent that is slightly greater than that claimed. With respect to the amount of solvent, the position is taken that one of ordinary skill would have found it obvious to vary the amount of solvent so as to control such properties as viscosity; it has not been established that the amount of diluent utilized is critical. With respect to the amount of macromer, Yu teaches at column 10, lines 12-16 that the ratio of ethylenically unsaturated monomer to macromer (i.e.; relative amounts of macromer to ethylenically unsaturated monomer) may be varied, so as to control the properties of the resulting polymer; therefore, patentee provides teaching that would motivate one to vary the amount of macromer, depending on the properties desired. Accordingly, the position is taken that it would have been obvious to increase the amount of macromer used from that disclosed within Example 2.

12. Applicants' amendments and arguments have been considered and the rejection in view of Yu has been modified accordingly.

Any inquiry concerning this communication should be directed to R. Sergent at telephone number (571) 272-1079.

RABON SERGENT
PRIMARY EXAMINER

R. Sergent
March 29, 2007